STAT

Gentlemen:

We wish to submit herewith our estimate for the suggested modification to Photo Devices 4X Printer Model #1071 as follows:

1. To modify existing negative supply and take-up mechanism to accommodate 16 mm and 35 mm negative roll materials in addition to the present 70 mm capability, the following arrangement will have to be incorporated:

Since the standard 16 mm and 35 mm spools accommodate a 5/16" round or square spindle and the 70 mm military standard spool accommodates a 3/8" round spindle, it will be necessary to provide an auxiliary loading spindle on the negative supply side which has to be located above the present 3/8" round spindle for 70 mm materials and the present film exhaustion signal bar relocated so that it will be usable both with 70 mm and 16 mm or 35 mm materials.

The negative take-up will also have to be equipped with an auxiliary take-up spindle located above the 3/8" diameter 70 mm spindle and this spindle connected with the present spindle through a belt or chain drive so that the rotary motion of the present spindle is transmitted to the auxiliary spindle, thus, making it possible to rewind 16 mm and 35 mm materials.

2. To modify the existing negative stage plate for step and repeat printing to accommodate standard 16 mm and 35 mm formats, it will be necessary to furnish a new stage plate with the proper apertures for the above requirement. This stage plate will have to be interchangeable with the present 70 mm stage plate and accurately machined to provide the exactly same focal point.

3. To modify the negative mechanism to accommodate 16 mm and 35 mm perforate and nonperforate roll negative and positive material, it will be necessary to discard the present step and repeat film advance mechanism which provides for a Geneva motion film advance and substitute for it a continuously variable film advance mechanism connected to the main drive in such a way that, through a dial extending from the back of the printer, any desired film advance from a minimum of 3/8" to a maximum of 2-3/4" can be preset and maintained at reasonable accuracy.

This mechanism will be so designed that it will take advantage of the present magnetic clutch between the belt drive and the film drive spindle and connect the power to the clutch for the necessary angle increment to pull a specific amount of film.

4. To modify the present supply brake tensioning device to accommodate variable spool weights compatible to items 1, 2 and 3 above will require the inclusion of a magnetic brake drum with a follower arm riding on the film supply so that the braking action of the drum is varied with the diameter of the film supply.

An alternative arrangement of this variable brake tension would incorporate a tendency drive torque motor to provide constant brake tension on the film supply regardless of the diameter of the film supply.

5. To modify present light source assembly so that Wild Xenon light source may be interchanged with present mercury vapor light source will not be practical, since the entire light house would have to be exchanged to provide for the Xenon light source and a highly accurate focusing mechanism provided which would have to be actuated every time a light source is exchanged.

As an alternative we suggest the inclusion of a variable speed pulley to the main drive mechanism, so that the main speed of the printer can be reduced to approximately three feet per minute or about a third of the present speed and thus permit the continuous flow printing of even the darkest negatives.

We also wish to suggest that for maximum utilization of the printer for 16 mm and 35 mm materials, the positive print easel be altered to accommodate 70 mm and 5" materials both on the step and repeat and flow film side and the necessary guides provided both on the positive supply and take-up side to accommodate the above width materials.

We estimate that approximately $9,200.00 will be required to complete the above innumerated changes and that approximately six weeks will be required at our factory to do this job satisfactorily.

Therefore, we suggest that the printer be returned to us for the specified period and we be permitted to accomplish all the changes as outlined above on our premises, since a considerable remachining of a major part of the components will be required.

Hoping to hear from you in the near future, I remain

Very truly yours,

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EPT:JJ